

C L A I M S

1. An imaging optical system comprising in order  
from the object side: a first positive meniscus lens  
having a convex surface on the object side; an aperture  
5 stop; a second negative meniscus lens having a convex  
surface on the image side; and a third positive lens,  
wherein an object side surface of said third lens is an  
aspherical surface having curvature which is lowered  
toward a marginal portion of the aspherical surface and  
10 an image side surface of the third lens is an aspherical  
surface having curvature which is enhanced toward the  
marginal portion of the aspherical surface.

2. The imaging optical system according to claim 1  
satisfying the following condition (1):

15 (1)  $-100 < (r1r^2/f1)/(r2f^2/f2) < -1$

wherein a reference symbol  $r1r$  represents a radius  
of curvature on an image side surface of the first  
positive lens, a reference symbol  $r2f$  designates a  
radius of curvature on an object side surface of the  
20 second negative lens, a reference symbol  $f1$  denotes  
a focal length of the first positive lens and a  
reference symbol  $f2$  represents a focal length of the  
second negative lens.

3. The imaging optical system according to claim 1 or 2 satisfying the following condition (2):

$$(2) 0.1 < f_1/f < 3.0$$

5 wherein a reference symbol  $f_1$  represents a focal length of the first positive lens and a reference symbol  $f$  designates a focal length of the imaging optical system as a whole.

4. The imaging optical system according to claim 1 satisfying the following condition (3):

$$10 (3) 1.0 < f_{23}/f < 4.0$$

wherein a reference symbol  $f_{23}$  represents a total focal length of the second lens and the third lens, and a reference symbol  $f$  designates a focal length of the imaging optical system as a whole.

15 5. The imaging optical system according to claim 1 satisfying the following condition (4):

$$(4) -10.0 < f_1/f_{23} < 3.0$$

20 wherein a reference symbol  $f_1$  represents a focal length of the first positive lens, and a reference symbol  $f_{23}$  designates a total focal length of the second negative lens and the third positive lens.

6. The imaging optical system according to claim 1

satisfying the following condition (5):

$$(5) \quad 0.1 < (\nu_2 - \nu_1)/(\nu_3 - \nu_2) < 8.0$$

wherein reference symbols  $\nu_1$ ,  $\nu_2$  and  $\nu_3$  represent  
Abbe's numbers of the first lens, second lens and  
the third lens respectively.

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7. The imaging optical system according to claim 1  
satisfying the following condition (6):

$$(6) \quad 10^\circ < \alpha < 40^\circ$$

wherein a reference symbol  $\alpha$  represents a maximum  
10 angle of incidence of a principal ray on an image  
surface.

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8. The imaging optical system according to claim 1,  
satisfying the following condition (7):

$$(7) \quad 0.50 \text{ [\mu m]} < Fno/P \text{ [\mu m]} < 2.00 \text{ [\mu m]}$$

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wherein a reference symbol Fno represents an  
F-number of the optical system and a reference  
symbol P designates an interval between picture  
elements on the image pickup device.

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9. The imaging optical system according to claim 1,  
20 satisfying the following condition (8):

$$(8) \quad 0.02 < ML/TL < 0.33$$

wherein a reference symbol TL represents a total

length of the optical system and a reference symbol  
ML designates a minimum axial thickness of the  
plastic lens.

10. An optical apparatus comprising the imaging  
5 optical system according to claim 1.